

REMARKS

The Office Action dated March 1, 2006 has been received and carefully noted. No amendments to the claims have been made, and therefore, the following remarks are submitted as a full and complete response thereto. No claims have been amended, and new claim 16 has been added to the application. Therefore, claims 1-16 are pending and submitted for consideration.

Claims 1-15 stand rejected under 35 U.S.C. §102(e) as being anticipated by *Parikh* (Literature “Seamless Handoff of Mobile Terminal from WLAN to CDMA2000 Network”). The Office Action took the position that *Parikh* teaches each and every element recited in the rejected claims. Applicants traverse the rejection and respectfully submit that each of claims 1-15 recite subject matter that is not taught or disclosed by *Parikh*.

Claim 1, the independent claim from which claims 2-9 depend, recites a method for ensuring continuity of a communication session when a user equipment hands over from a first communication network to a second cellular communication network comprising the steps of; performing an authentication procedure for a packet data session with a second communication network while still being attached to a first communication network, and simultaneously performing a packet data session establishment procedure with the second communication network while still being attached to the first communication network.

Claim 10, the independent claim from which claims 11-13 depend, recites a method for ensuring continuity of a communication session, the method comprising; handing over by a user equipment from a first communication network to a second cellular communication network, and when the user equipment hands over from the first communication network to the second cellular communication network, maintaining an attachment of the user equipment to the second cellular communication network after the user equipment moves away from a coverage area of the second cellular communication network for a predetermined time in order to allow the user equipment to return to the second cellular communication network without having to repeat an authentication procedure and a packet data session establishment procedure before handing over to the second network.

Claim 14 recites a communication system comprising a user equipment, a first communication network and a second cellular communication network, the system being arranged to; enable continuity of a communication session when a user equipment moves from a coverage area of the first communication network to a coverage area of a second cellular communication network, simultaneously perform an authentication procedure for a packet data session with the second cellular communication network and perform a packet data session establishment procedure with the second cellular communication network while the user equipment is still attached to the first communication network.

Claim 15 recites a communication system for ensuring continuity of a communication session when a user equipment hands over from a first communication

network to a second cellular communication network, the communication system comprising; first performing means for performing an authentication procedure for a packet data session with a second communication network while still being attached to a first communication network, and second performing means for simultaneously performing a packet data session establishment procedure with the second communication network while still being attached to the first communication network.

Parikh teaches seamless handoff of a mobile terminal from a WLAN to a CDMA2000 network. The handoff process of *Parikh* includes sending a proxy router solicitation message to an access router, which sends a router solicitation to the packet data support node. The mobile terminal arranges to transfer the bearer content (information required to establish access network bearers in the CDMA2000 network for the mobile terminal's ongoing sessions) to the packet data support node via the access router. The bearer content may be piggybacked onto the fast handoff signaling or it can be transferred in a separate message. The packet data support node responds to the message using the router advertisement that is forwarded to the mobile terminal via the access router. The mobile terminal responds by sending a registration request to the packet data support node via the access router. This message contains the network address identifier, authentication data, etc.

Upon receipt of the registration request, the packet data support node uses the network address identifier to determine the home AAA domain of the mobile terminal and queries the home domain via a broker forward process, for example, to obtain service

authorization and authentication. The home AAA sends the response and includes a ticket with encrypted information therein, and the packet data support node stores the ticket and sends it to the mobile terminal via the access router along with any required configuration parameters. The handoff process of *Parikh* continues with the mobile terminal sending an acknowledge message to the packet data support node via the access router and includes the ticket for security and service authorization processes. While the mobile terminal is waiting, the CDMA2000 network performs bearer setup and the packet data support node performs registration with the home agent. Upon receiving the registration reply from the home agent, the packet date support node forwards it to the mobile terminal on one of the established access bearers.

However, careful review of *Parikh* reveals that there is no teaching or disclosure of “simultaneously performing a packet data session establishment procedure with the second communication network while still being attached to the first communication network,” as recited in claim 1. In the present invention, pre-authentication in the UMTS system is included, along with the set up of the IP connectivity, and the packet data session establishment processes for the second network are conducted “simultaneously” while still being connected to the first network. *Parikh* discloses only that the pre-authentication process is carried out while still being connected to the first communication network, which is described with respect to steps 2 to 4 in Figure 4 of *Parikh*. The actual L2 authentication, which is different from pre-authentication, is carried out in step 5 (see Figure 4) of *Parikh*. The IP bearer establishment is then carried

out in steps 6 and 7 of *Parikh*. However, nowhere in *Parikh* is there a teaching or suggestion of simultaneously performing a packet data session establishment procedure with the second communication network while still being attached to the first communication network.

Rather, in *Parikh* only the pre-authentication process is carried out while still being attached to the first communication network, while in the invention recited in claim 1, the pre-authentication and the PDP context establishment is carried out while still being attached to the first communication network. This clearly results in a shorter handoff time for the invention recited in claim 1, as the PDP context establishment (step 6 in *Parikh*) does not need to be executed, as well as step 7, after moving to the second communication network. The object of the invention recited in claim 1 is to carry out both authentication and PDP context establishment while still connected to the first communication network and then handoff, which is not taught or disclosed by *Parikh*.

Further, Applicants refer to section 4.1 of *Parikh*, with reference to Figure 4, where *Parikh* clearly describes phase 2 of the handoff process as being carried out after moving the second communication network. Applicants again note that the invention recited in claim 1 expressly recites “performing an authentication procedure for a packet data session with a second communication network while still being attached to a first communication network,” which is not taught or disclosed by *Parikh*. In this phase, the network performs the bearer setup (step 6) and performs the registration procedure (step 7). Thus, the method of *Parikh* requires PDP context establishment to be carried out after

having moved to the UMTS domain. Therefore, it appears that the Office Action has misinterpreted which steps of the handoff scheme in *Parikh* are carried out while the mobile remains connected to the first communication network, as a careful review of the disclosure of *Parikh* clearly illustrates that the packet data session establishment procedure is performed after moving to the second communication network. Therefore, Applicants submit that *Parikh* fails to teach or disclose each and every feature recited in claim 1, and as such, reconsideration and withdrawal of the rejection of claim 1, along with dependent claims 2-9, is respectfully requested.

With regard to the rejection of claim 10 over *Parikh*, Applicants submit that *Parikh* again fails to teach or disclose each and every limitation recited in claim 10. More particularly, claim 10 recites “maintaining an attachment of the user equipment to the second cellular communication network after the user equipment moves away from a coverage area of the second cellular communication network for a predetermined time in order to allow the user equipment to return to the second cellular communication network without having to repeat an authentication procedure and a packet data session establishment procedure before handing over to the second network,” which is not taught or disclosed by *Parikh*. Further, although the term “simultaneously” is not expressly recited in claim 10, the language of the claim clearly indicates that the packet data session establishment procedure is conducted while still being in communication with the previous communication network. Therefore, Applicants submit that *Parikh* fails to teach or disclose each and every limitation recited in claim 10, and as such,

reconsideration and withdrawal of the rejection of claim 10, along with dependent claims 11-13, is respectfully requested.

With regard to the rejection of claim 14, Applicants submit that *Parikh* fails to teach or disclose each and every limitation recited in the claim. More particularly, claim 14 recites that the system is arranged to “simultaneously perform an authentication procedure for a packet data session with the second cellular communication network and perform a packet data session establishment procedure with the second cellular communication network while the user equipment is still attached to the first communication network.” As discussed above with regard to claim 1, *Parikh* does not teach or disclose simultaneous authentication with a new network while still being connected to a previous network. Therefore, since *Parikh* does not teach or disclose each and every element recited in claim 14, reconsideration and withdrawal of the rejection of claim 14 is respectfully requested.

With regard to the rejection of claim 15, Applicants submit that *Parikh* again fails to teach or disclose each and every limitation recited in claim 15. More particularly, claim 15 recites a communication system having performing means for simultaneously performing a packet data session establishment procedure with the second communication network while still being attached to the first communication network, which is also not taught or disclosed by *Parikh*, as discussed above with respect to claim 1. Therefore, reconsideration and withdrawal of the rejection of claim 15 is respectfully

requested, as *Parikh* fails to teach or disclose each and every element recited in the rejected claim.

Therefore, in view of the above noted remarks, Applicants submit that each of claims 1-16 recite subject matter that has not been taught or otherwise disclosed by *Parikh*. Specifically, Applicants submit that the simultaneous establishment procedures recited in the rejected claims are not disclosed or taught by *Parikh*. As such, reconsideration and withdrawal of the rejection of claims 1-16 is respectfully requested.

In conclusion, Applicants submit that claims 1-16 are pending the application and are submitted for consideration. Reconsideration of claims 1-16 in view of the above noted remarks is respectfully requested. Claims 1-16 are pending and submitted for consideration.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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Enclosures: Petition for Extension of Time (1 month)